

REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

This amendment revises the title of the application to be more descriptive of the invention.

This amendment revises the drawings to correct an error in Figure 2.

The indication of allowable subject matter presented by claim 37 is noted with appreciation. This amendment rewrites claim 37 in independent form as new claim 50 to include all of the limitations of the rejected parent claims.

This amendment further cancels former claims 25 and 28, and adds new claims 46 to 49.

Claim Rejections 35 U.S.C. § 102

Claims 25-28 are rejected under 35 U.S.C. 102(b) as being anticipated by McCarthy.

This rejection is respectfully traversed.

In order to be a proper rejection under 35 U.S.C. 102(b), the prior art reference must show each and every feature of the invention. McCarthy clearly fails to do this.

McCarthy shows a method and apparatus for forming recesses or highlights on a piece of jewelry such as an earring. In McCarthy, the earring is mounted on a moveable platform, and a spinning tool such as a diamond tool mounted on the end of a spindle is selectively brought into contact with the earring in order to form the highlights.

Applicant's device as disclosed and claimed is not at all similar to that shown in McCarthy. Applicant's device is for carrying out a turning process on a workpiece. It is well known in the art that the term "turning" refers to a type of machining operation in which the workpiece is rotated about an axis and the point of a tool is brought into contact with the

workpiece. The workpiece rotates while the tool remains stationary and the cutting edge of the tool removes selected portions of the workpiece. The tool is usually advanced parallel to the axis of rotation of the workpiece so that the tool point traverses a part of or all of the workpiece along a path that is parallel to the axis of rotation of the workpiece. The locus of the point of engagement of the tool with the workpiece is a helix which encircles the workpiece a number of times.

McCarthy does not show a turning process for a workpiece. In McCarthy, the earring does not rotate around an axis while a tool traverses a part or all of the workpiece along a path that is parallel to the axis of rotation of the workpiece. In McCarthy, the locus of the point of engagement of the tool with the earring is not a helix that encircles the workpiece a number of times.

This amendment cancels claim 25 and adds new independent claim 46. Claim 46 recites a turning process for producing a finished surface on the surface of a component that includes the surface of the depressions and the surface of the component surrounding the depressions. As discussed above, McCarthy does not disclose a turning process and McCarthy does not show a process for finishing the surface of the depressions and the surface of the workpiece surrounding the depressions.

Claim 46 recites rotating the component about a component axis and moving the point of engagement between the tip of the tool and the surface of the component in the direction of the component axis as the component rotates around said axis whereby the point of engagement is a helix which encircles the component axis a plurality of times. These steps are not shown by McCarthy.

Claim 46 recites increasing the depth of cut taken by the tip of the non-rotating tool at intervals during the turning process to create a plurality of depressions. In McCarthy, there is no turning process and accordingly depressions are not created during a turning process. Claim 46 further recites that the surface of the depressions and the surface of the components surrounding the depressions are finished during the same machine cycle and by the same tool. This limitation is nowhere shown in McCarthy since in McCarthy only the highlights of the earring are created by the tool, and the areas of the earring surrounding the highlights are untouched by the tool.

As a result, the rejection of claims 46 and 26-28 under 35 U.S.C. 102(b) on the basis of McCarthy is untenable and should be withdrawn.

Claim Rejections 35 U.S.C. § 103

Claims 29-36 and 38-44 are rejected under 35 U.S.C. 103 as being unpatentable over McCarthy. The Examiner relies on McCarthy's disclosure at column 7, lines 60-67 and column 8, lines 1-67 for the basis of the rejection.

The Examiner states that it would have been obvious to perform the claimed operations and to measure or gauge the necessary information from the tool and the workpiece in view of the teachings of McCarthy.

This rejection is respectfully traversed.

As discussed above, applicant's invention is directed to a turning process in which the workpiece is turned while being engaged by a tool. The tool is moved along the surface of the workpiece in the direction of the axis of rotation in order to finish the surface of the workpiece. Applicant's claims clearly recite the steps of rotating a component about a component axis, engaging the tip of a tool with the surface of the component, moving the point of engagement

between the tip of the tool and the surface of the component in the direction of the component axis as the component rotates around the axis whereby the point of engagement between the tip of the tool and the surface of the component is a helix which encircles the component a plurality of times, and creating a plurality of depressions by increasing the depth of cut taken by the tip of the tool at intervals during the turning process so that the depressions and the surface of the component surrounding the depressions are formed by the same tool and during the same machine cycle. Applicant's independent claims 46, 41, 42 and 44, upon which claims 29-36, 38-40, and 43 depend, all contain these steps.

None of these steps are shown or rendered obvious by McCarthy since McCarthy is directed to an entirely different method, apparatus, and field of technology. Accordingly, it is believed that the rejection of applicant's claims under 35 U.S.C. 103 based on the reference to McCarthy is in error and should be withdrawn.

Allowable Subject Matter

The Examiner has indicated that claim 37 would be allowable if re-written in independent form to include all of the limitations of the base claim and any intervening claims. This amendment re-writes claim 37 as new claim 50 to include the limitations of the former base claim 25. Accordingly, claim 50 should be allowable.

New Claims

This amendment adds additional claims 47-49 which are dependent upon a new independent claim 46. It is believed that claims 47-49 are allowable over the prior art and recite elements of applicant's invention for which applicant is entitled to patentable protection.

The remaining prior art reference cited in this case has been reviewed with interest, but

taken singly or in combination with McCarthy, does not appear to show, teach or render obvious applicant's invention as claimed.

For the foregoing reasons it is believed that this Amendment places the claims now appearing in this case in condition for allowance, and an early notice to such effect is respectfully solicited.

In the event that the Examiner does not agree that the claims are now in condition for allowance, he is courteously invited to contact the undersigned at the number given below in order to discuss any changes which the Examiner believes would lead to an allowance of the claims.

This amendment changes the number of independent claims in this case from 4 to 5, and changes the total number of claims in this case from 20 to 23. Thus, it is believed that additional fees of \$140 are required for the additional claims added by this amendment to the case. Enclosed herewith is the applicant's check in the amount of \$140 to cover the additional claim fees. If additional fees are necessitated by the entry of this amendment, authorization is hereby given to charge such fees to applicant's Deposit Account No 50-0852. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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Amendments to the Drawings

Included herewith for the Examiner's approval is an Annotated Sheet showing changes to the drawings and a Replacement Sheet of Drawings. In Figure 2, reference numeral 10 should be reference number 12 to correspond with the description of the invention at page 10, lines 17-19.

Approval of the Replacement Sheet of Drawings is respectfully requested.

Attachment: Replacement Sheets
Annotated Sheets Showing Changes